

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the following discussion is respectfully requested.

Claims 1-24 are pending in the present application with Claims 2, 4, 6, 8, 10, 12, 14, and 16-24 withdrawn from consideration.

In the outstanding Office Action, Claims 1, 3, 5, 7, 9, 11, 13, and 15 were rejected under 35 U.S.C. § 102(e) as anticipated by Imai et al. (Japanese Patent Publication No. 2002-289810, herein “Imai”), which is respectfully traversed for the following reasons.

Applicants thank Examiners Jackson and Chu for the courtesy of an interview extended to Applicants’ representative on October 26, 2005. During the interview, the differences between the pending claims and the applied art were discussed. The examiners indicated that they would consider the arguments presented during the interview in view of a filed response. Arguments presented during the interview are reiterated below.

Briefly recapitulating, independent Claim 1 is directed to a semiconductor device that has a semiconductor substrate, a conductive plug, a flat electrically conductive silicon carbide fill, a flat metal compound film, and a flat electrode. The conductive plug electrically connects the semiconductor substrate and includes Si, the flat electrically conductive silicon carbide film is provided on the conductive plug, and the flat metal compound film is provided on the flat electrically conductive silicon carbide film and includes a metal carbide.

In a non-limiting example, Figure 1G shows the semiconductor substrate 1, the conductive plug 16, the flat electrically conductive silicon carbide film 21, the flat metal compound film 26, and the flat electrode 23.

Turning to the applied art, Imai shows in Figures 1(a)-(c) a semiconductor device having a semiconductor substrate 100, a conductive plug 116, a flat electrically conductive

film 117, and a flat film 118. The outstanding Office Action asserts at page 3, lines 3-5, that Imai discloses in paragraphs [0044] and [0081] that the flat film 118 is a metal compound film and includes a metal carbide. However, as discussed during the interview, paragraph [0044] of Imai does not teach or suggest a flat metal compound film including a metal carbide.

Regarding paragraph [0081], Imai discloses that a minimization of the free energy in a siliciding reaction cannot be obtained only by silicidation and a reaction of the silicon carbide and a metal carbide is difficult to occur. However, if paragraph [0081] of Imai is read in context of paragraphs [0067]-[0080], Imai refers to a SiC protective coat 117 that corresponds, as asserted in the outstanding Office Action, to the claimed flat silicon carbide film, as undergoing a reaction with a metal as described by reactions (1) and (2) (see paragraph [0078] of Imai). However, a reaction of the silicon carbide and metal carbide is very difficult to occur. In addition, there is no reason to have a metal carbide in the metal film 118 of Imai because the metal film 118 is a lower electrode of a capacitor.

Further, as discussed during the interview, the machine English translation of Imai is confusing and one of ordinary skill in the art would not be able to infer only from that translation that in fact the reactions (1) and (2) did occur in the device shown in Figures 1(a)-(c).

Therefore, it is respectfully submitted that Imai does not teach or suggest that a flat metal film 118 includes metal carbide as required by Claim 1. Accordingly, it is respectfully submitted that independent Claim 1 and each of the claims depending therefrom patentably distinguish over Imai.

Consequently, in light of the above discussion, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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